CURRICULUM VITAE

Patrik Simic

Personal Data

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Education

Master's degree in mathematics and computer science,
Faculty of Natural Sciences and Mathematics,
Mathematics department, University of Zagreb, Croatia,

Work experience

Sabbatical

- period: October 2023 – present

  minor contributions to following Rust based projects:

  [Zed Editor](https://github.com/zed-industries/zed) – github.com/zed-industries/zed
  [Quadratic](https://github.com/quadratichq/quadratic) – github.com/quadratichq/quadratic
  [Typst](https://github.com/typst/typst) – github.com/typst/typst
  [Graphite](https://github.com/GraphiteEditor/Graphite) – github.com/GraphiteEditor/Graphite

  helping friends

  traveling

PSPDFKit   www.pspdfkit.com (rebranded as Nutrient)

- period: August 2022 – October 2023

- job description: Windows SDK team lead / senior software developer

- responsibilities: full remote software development (the company headquarter
  is located in US employing people from 29 countries).

  Implementation of the Windows App SDK and MAUI SDK of the
  main company product (PDF management library) using
  C#, C++, React (JavaScript) and Webassembly.

  Helping with integration of acquired companies (Orpalis
  and Muhibmi) and their software.

  blog articles:
  "How to build a Tauri PDF viewer with PSPDFKit"
  "How to Build a .NET MAUI PDF viewer"
  "Sonus Vox"
  "A Perfect Gift ..."

Fix8 Market Tech   www.fix8mt.com

- period: April 2020 – July 2022

- job description: senior software developer

- responsibilities: full remote software development (the company is located
  in Australia) using Vue.js, Gridsome (JavaScript) and
  Django (Python) with tools: Github, Docker, CicleCI,
  Slack ...

  Implementation of a configuration editor for the
  company's existing FIX engine

  Rewrite of the company website from an single page
  application to a statically generated site using
  Gridsome framework with GraphQL

  Implementation of various search engine optimizations
  using Amazon services (S3 and CloudFront)

nemase.com   www.nemase.com

- period: June 2016 – December 2019

- job description: senior software developer

- responsibilities: software development using Vue.js (JavaScript) and Rust

  Implementation of a survey engine using Vue.js for
  frontend and Rust for backend

  Using probabilistic graphical models (bayesian networks)
  to implement AI capabilities of the survey engine

Altova   www.altova.com

- period: July 2003 – November 2015
- job description: software team lead /senior software developer
- responsibilities: software development in MS VC++ 2010, 2008 and 6.0
  using MFC, Scintilla and ANTLR
  software development using Scala

  Implementation of a text editor and text control for all
  Altova's products (XmlSpy, MapForce, uModel,
  StyleVision, DiffDog, SemanticWorks etc.) based on
  scintilla with autocompletion support for
  various languages (XML, XQquery, HTML, CSS etc.)

  Implementation of Java parsers for uModel application
  based on ANTLR, as well as parsers for several dialects
  of SQL for DatabaseSpy application based on modified
  ANTLR engine

  Implementation of a charting library, XBRL editor and
  parts of XML schema validator
  Customization of Clang front-end for parsing MSVC
  runtime C++ code

  Implementation of low level data structures for
  MobileTogether set of applications

  Implementation of MobileTogether server using C++,
  Python, Cython and CherryPy

  Implementation of web client for MobileTogether
  application – generating JavaScript and
  HTML using jQuery and jQuery mobile libraries

Salomon Automation www.salomon.at

- period: October 2002 – May 2003
- job description: software developer
- responsibilities: software development in C under HP-UX
  (with Windows and Linux targets)

AVL   www.avl.com

- period: September 2000 – September 2002
- job description: software developer
- responsibilities: software development in MS VC++ 6.0
  (mostly using ATL, STL, WTL),
  Java (Borland JBuilder 6) with OpenGL

  Implementation of Lookahead Driver numerical algorithm
  for prediction of automobile engine behavior, design and
  implementation of custom COM containers based on
  combination of STL containers, maintenance and extensions
  to TestDrive, a 3D track editor written in java using
  OpenGL

Professional skills

- good working knowledge in programming on Windows and Linux (Fedora, Arch, Ubuntu, NixOS) using Rust and C++ programming languages, interest in Object Design and generic programming using functional and template patterns
- good working knowledge in web frontend programming using Svelte(Kit), Vue.js and React
- experience with Scintilla and ANTLR open source projects
- experience with concurrent programming using Rust, C++, Scala and Erlang/Elixir – name of my master's thesis was "Actor model of concurrent computation" where I implemented a small actor library in C++)
- special personal interest in functional programming – Ocaml, Haskell and Common LISP programming languages, as well as certain fields in mathematics (Abstract Algebra, Number Theory and Graph Theory

Languages

- English language: fluent (written and spoken)
- German language: fluent (written and spoken)
- Spanish language: basic grasp

Certificates / Courses / Conferences

- [Euro Rust 2024](), October 10 2024, Vienna, Austria
- [Euro Rust 2024 – Testing in Rust Workshop](), October 9 2024, Vienna, Austria
- [Lambda Days](),February 22 2018, Krakow Poland
- [International Conference on Functional Programming – Workshop on Type-Driven Development](), 2017, Oxford, UK
  [EuroClojure 2012](), May 21 2012, London, UK
- [European Common Lisp Meeting](), September 13 2009, Hamburg, Germany
- [European Ruby Conference](), March 29–30 2008, Prague, Czech Republic
- [International Lisp Conference 2007](), June 19–22 2005, Cambridge,UK
- [European Common Lisp Meeting](), April 30 2006, Hamburg, Germany
- [European Joint Conferences on Theory and Practice of Software](), March 25 – April 2 2006, Vienna, Austria
- [International Lisp Conference 2005](), June 19–22 2005, Stanford University, USA
- [European Common Lisp Meeting](), April 24 2005, Amsterdam, Netherlands
- [Working Conference on Generic Programming](), July 2002, [Dagstuhl](), Germany
- [International Conference On Functional Programming, Haskell Workshop](), September 2001, Florence, Italy

Local Meetups

- [Vienna Rust](#)
- [Svelte Society Austria](#)
- [ViennaJS](#)